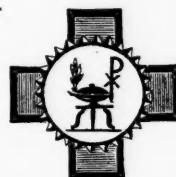


# RECORDS OF THE PAST

VOL. III



PART VIII

AUGUST, 1904



## NEGLECTED ARCHAEOLOGICAL RUINS IN COELESYRIA

BY REV. GEORGE C. DOOLITTLE, M. A.

THE towering ranges of the Lebanon and Antilebanon mountains are separated by a wide and fertile plain, which the ancients called Coelesyria (hollow-Syria), and in the Arabic of to-day El Bika'a. For a distance of nearly a hundred miles, from southwest to northeast, stretches this mighty plateau, averaging 7 miles in width, and rising to over 4,000 feet above the level of the Mediterranean. Throughout its length flows the Litâny river (the Leontes of classical writers), which leaves the elevated plain at its southernmost point and enters a narrow channel at the bottom of a gigantic chasm, emptying finally into the sea a few miles north of Tyre.

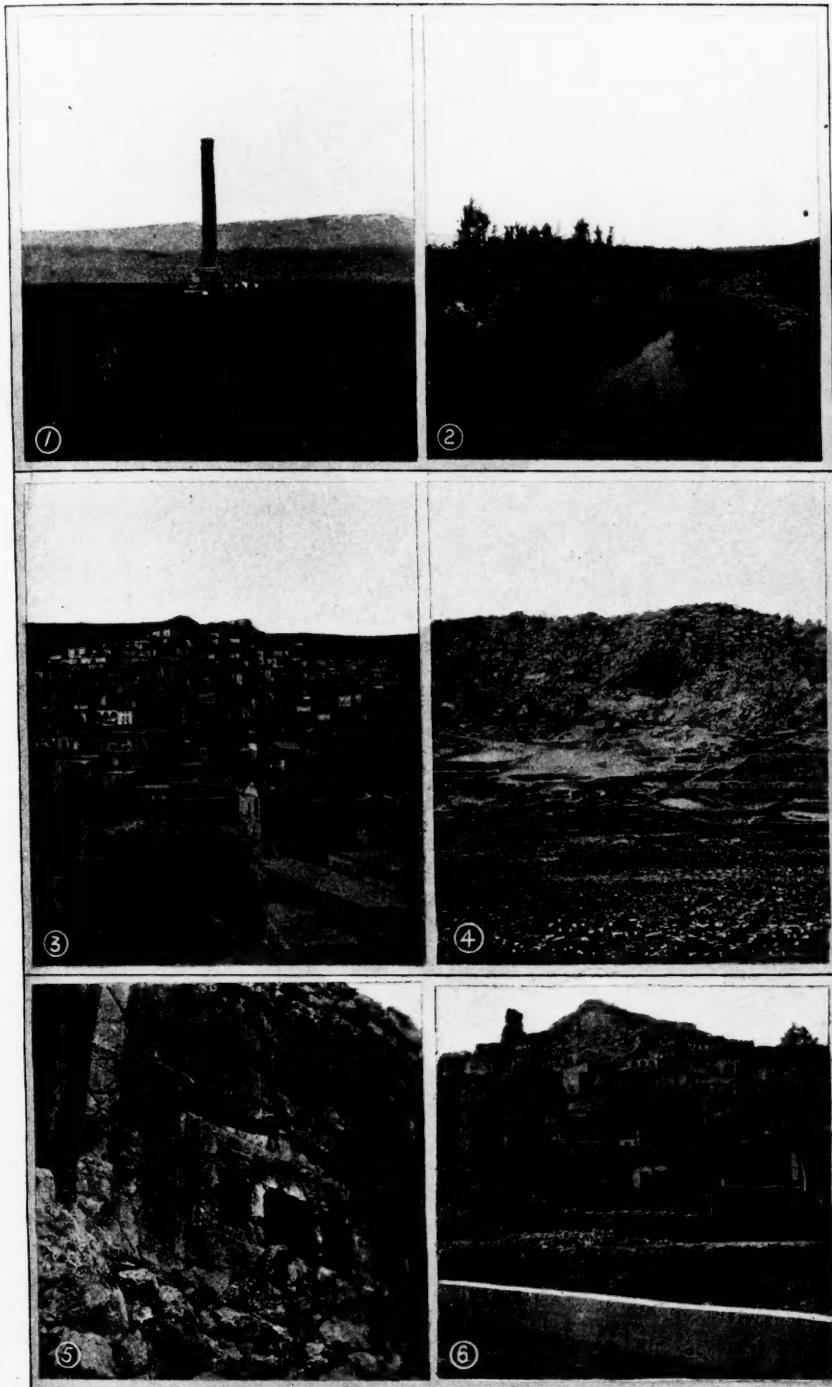
From the northern boundaries rises another important stream, the Orontes, whose northward course, contrary to the rivers of Syria, has given it the Arabic name of "the rebellious" (el 'Asy). The principal source of this river is a gushing fountain in a picturesque valley, or cleft, below the rock-hewn cavern, that is the reputed haunt of Marûn, founder of the Maronite religion. From the eastern side of the plain, below Lebweh, or ancient Libo, springs another fountain of clear, cold water, that adds its volume to the Orontes, carried thither by conduits, after irrigating the intervening fields. One of these aqueducts was built as early, at least, as 250 A. D., when Queen

Zenobia reigned in splendor at Palmyra on the Syrian desert. It led, not westward to the Orontes, but by a long circuit around the northern end of the Antilebanon and through the maze of valleys and hills out onto the eastern plain that stretches off to Palmyra (Tadmor), the gem of the desert. A bit of this ancient aqueduct, not far from Lebweh, appears in the accompanying illustration.

From earliest times Coeseyria has been prominent in the history of wars and conquests, in the rise and decline of civilizations and religions. Its broad stretches contain many artificial mounds that would doubtless amply reward the explorer's efforts. Ruined cities await investigation. One has recently been found along the line of the new railway. Much Biblical history is connected with this plain. At Ribleh, now a squalid hamlet, Nebuchadrezzar was wont to stay, while his officers conducted his campaigns against Israel and Judah (2 Kings, xxv, 6). Hither Pharaoh-nechoh summoned the wicked King, Jehoahaz, and "put him in bands" (2 Kings, xxiii, 33). The northern part of the Bika'a is defined in *Joshua* xiii, 5, as "the entering into Hamath." This whole valley was once under the sway of the Hittites, whose supremacy was disputed by the Pharaohs of Egypt.

If legend carries any weight, then Coeseyria is entitled to the greatest respect. For at Kerak, near Zahleh, is the grave of Noah, 132 ft. long, protected now by a narrow building, whose one door swings open only at the magic pass-word of "bakhshish." Noah was indeed a giant! Across the plain is the tomb of Seth. Both these shrines are visited by many pilgrims.

Coeseyria was the home of Baal-worship. On the eastern edge of its wide acres stands Baalbek, ancient Heliopolis, world-renowned for its stupendous temples to the sun-god. Although there is no intention in this article of touching upon these ruins, made doubly interesting by the recent work of German excavators, other lesser Baal-temples will be alluded to and described. All along the great plain, on either side, its guardian mountains carried upon their high points many temples of the heathen god, whose ruins are the forceful reminder of vanished glory. These temple-ruins seem to have had some connection with the central one at Baalbek, as if they had formed a circle about it, all pointing in that direction. There is one such temple across the plain from Zahleh, above the town of Kefr Zebed. Its ruins consist of a well-marked foundation area, columns and friezes. The needs of later generations, however, have caused the disappearance of the most of this ruin. Above Shleefa, northwest of Baalbek, a spur of the mountain projects into the plain, and at its tip is the ruin of another temple—hardly more than a name at the present day. In pleasing contrast is the well-preserved sun-temple at Niha, nestling in a subsidiary valley, half way up the western slope, 4,200 ft. above sea level. An hour's ride from Zahleh and a stiff climb past the village (where are other minor ruins) brings the traveler to this temple. It stands upon a platform 11 ft. high, with a front projection of nearly



1. YA'AT COLUMN. 2. ANCIENT AQUEDUCT, NEAR LIBO. 3. ZAH-  
LEH. 4. SHRINE NEAR KOBB ELIAS. 5. NEAR VIEW OF TRIPLE NICHE.  
6. KOBB ELIAS, SHOWING CRUSAIDER CASTLE

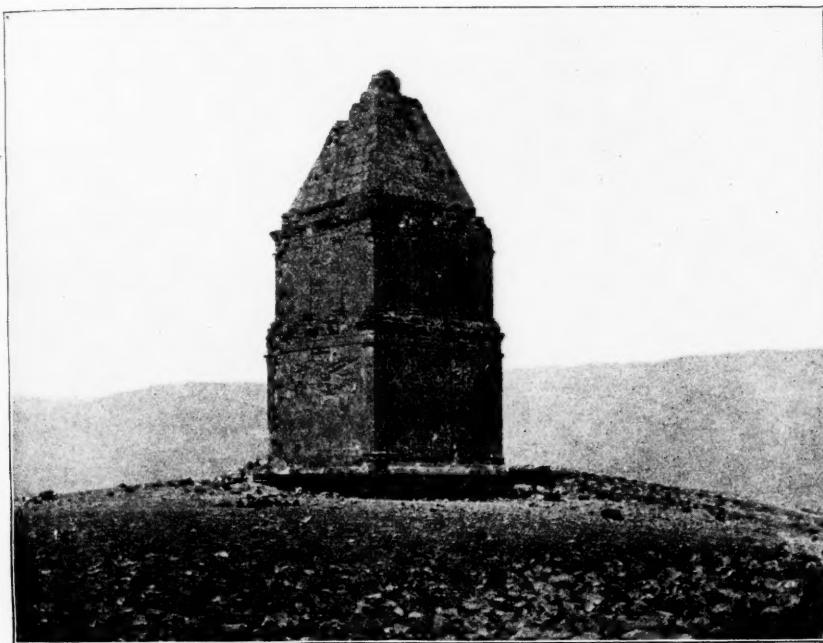
30 ft., and a series of steps leading up to this from the ground. The temple is solidly built of massive stones, some measuring 16 ft. in length. The carved ornamentation is excellent. There was evidently a portico in front, with large pillars. As at Baalbek, a winding staircase within the wall near the portal leads up to the roof. This temple, over 90 ft. in length, facing Baalbek and the east, was doubtless an important point in the circle of Baal-temples.

Another is found above the village of Mejdel 'Anjar, to the southeast, on the line of the old Damascus carriage road. This, too, faces toward Baalbek. Its portal is 47 ft. high. The temple is in a fair state of preservation.

Cross now to the village of Kobb Elias, above which are the remains of an old Crusader castle. Near by is a remarkable bit of carving in the face of a steep mountainside. A large section of this was smoothed off and edged with a frame of rock; then inside this smooth surface another frame was carved, containing a tripartite niche. No writing of any description has been found to explain this peculiar piece of work. As it faces the east, it may have been a shrine for morning sacrifice. Or was the intention to hollow out a chamber behind this opening as a family tomb, or a royal vault?

Leaving these relics of heathen religions, turn to memorials of ancient heroes. In the midst of the plain to the northwest of Baalbek stands a solitary column, 65 ft. high. The illegible inscription on its northern side reveals nothing of the secret of its existence. Behind rise the highest mountain-peaks in Syria. This Ya'at Column stands upon a base of 4 step-like rows and a pedestal composed of 2 pieces. The column proper contains 15 circular pieces and a double cap-stone, the upper being a badly-disintegrated Corinthian capital. Vandals have attempted to destroy the column with gunpowder, in order to get the iron binders.

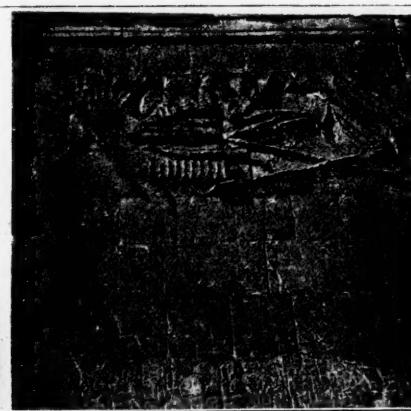
At the northern end of the Coelesyria Plain, lifted high above the surrounding country, stands the Kamu'at Hirmil, a monument to the success of some ancient monarch in the chase. From its point of vantage may be seen Hums (ancient Emesa) and the regions toward Hamath, while far to the south rises the snow-clad peak of Hermon. The monument is built upon a foundation of basalt in 3 layers. The first layer is  $37\frac{1}{4}$  ft. square, and 1 ft. 7 in. thick. The second and third are each 1 ft. 3 in. thick and proportionately smaller in area. The monument is in 3 distinct parts, the top one being a pyramid about 15 ft. high. At the corners of the lower story, which is 23 ft. high, are squared engaged columns, and it is surmounted by a cornice. The second story, 19 ft. in height, also has a cornice and columns, beside two half-columns in each face. The southwestern corner has been broken down by the gold-thirsty inhabitants of the district. Their only reward, however, was a bit of fruitless experience; for the monument is one solid piece of masonry, laid in excellent mortar. The inner part is not all of limestone, as is the face, but contains huge



KAMU'AT HIRMIL—FROM THE NORTHEAST



EASTERN FACE OF KAMU'AT HIR-  
MIL, WILD BOAR ATTACKED  
BY DOGS



NORTHERN FACE OF KAMU'AT  
HIRMIL, ENLARGED VIEW  
OF RECUMBENT DEER

blocks of a conglomerate that has weathered the elements remarkably well. The 4 faces of the lower story were carved with hunting scenes. On the eastern face is a wild boar, attacked behind and before by his mortal enemies, the hunting dogs. The spears of his pursuers have also been aimed at his head, while at the edges of the picture are bows, arrows, quivers, etc. The distinguishing characteristics of the north face are 2 deer—the right one standing, the left one recumbent, with his head upon his forelimb. (Possibly he has been wounded.) This left-hand deer has been well preserved—nostril, eye, hoofs, fetlock, horns, and prongs all show distinctly. Here, too, are the weapons of the chase, the spears crossed at each end, and above them a peculiar, cage-like article, bound with leathern thongs and having a handle



SOUTHWESTERN CORNER OF KAMU'AT HIRMIL, DESTROYED BY TREASURE SEEKERS

above. Could it have been to carry a hunting bird? Another queer article is seen below each deer (very clearly in the enlarged picture). Its use is a puzzle. These figures must have been carved *in situ*, as each piece covers more than one stone. The hieroglyphs at the bottom of this face are *not* Hittite! They simply prove in Arabic the well-attested doggerel, "Fools' names, like their faces, often appear in public places." Of the western face, three-quarters are still standing, and show a large animal attacked by a smaller one—possibly a lion and a dog. But the head of each has disappeared.

These are a few of the most striking reminders of bygone ages in

Coelesyria. They are so greatly overshadowed by the titanic ruins of Baalbek as to have been neglected by most writers. Each one, however, has played its part in the drama of history, and points to some fact, or personage, or event (known now, or unknown), that excited in its time the wonder, or worship, or praise, or envy of this corner of the world.

Lest we should return from antiquity with too great momentum, let us stop at this fountain only a few centuries old. Its guardian lions, chained to the substantial archway, keep watch over the stream of clear, pure water that for many, many generations has filled the jars of modern Rebekahs in a little Lebanon town. As one stands upon the veranda of the missionary residence in oriental Zahleh he may look off across the level stretches of Coelesyria upon a scene of mingled colors in sky and mountain and plain. As he watches the play of light and shadow, and varying tints of the sunset glow, marvelous in their richness and rapidity of change, he may well forget that this great plain was for centuries shaken with the tread of armies and devoted to the worship of Baal. Man's attempts at world-empire have failed—his altars and temples are in ruins. But the eternal hills and the rolling plain reveal the handiwork of an almighty Creator, "the same, yesterday, and to-day, and forever."



#### GERMAN EXCAVATIONS IN FARA

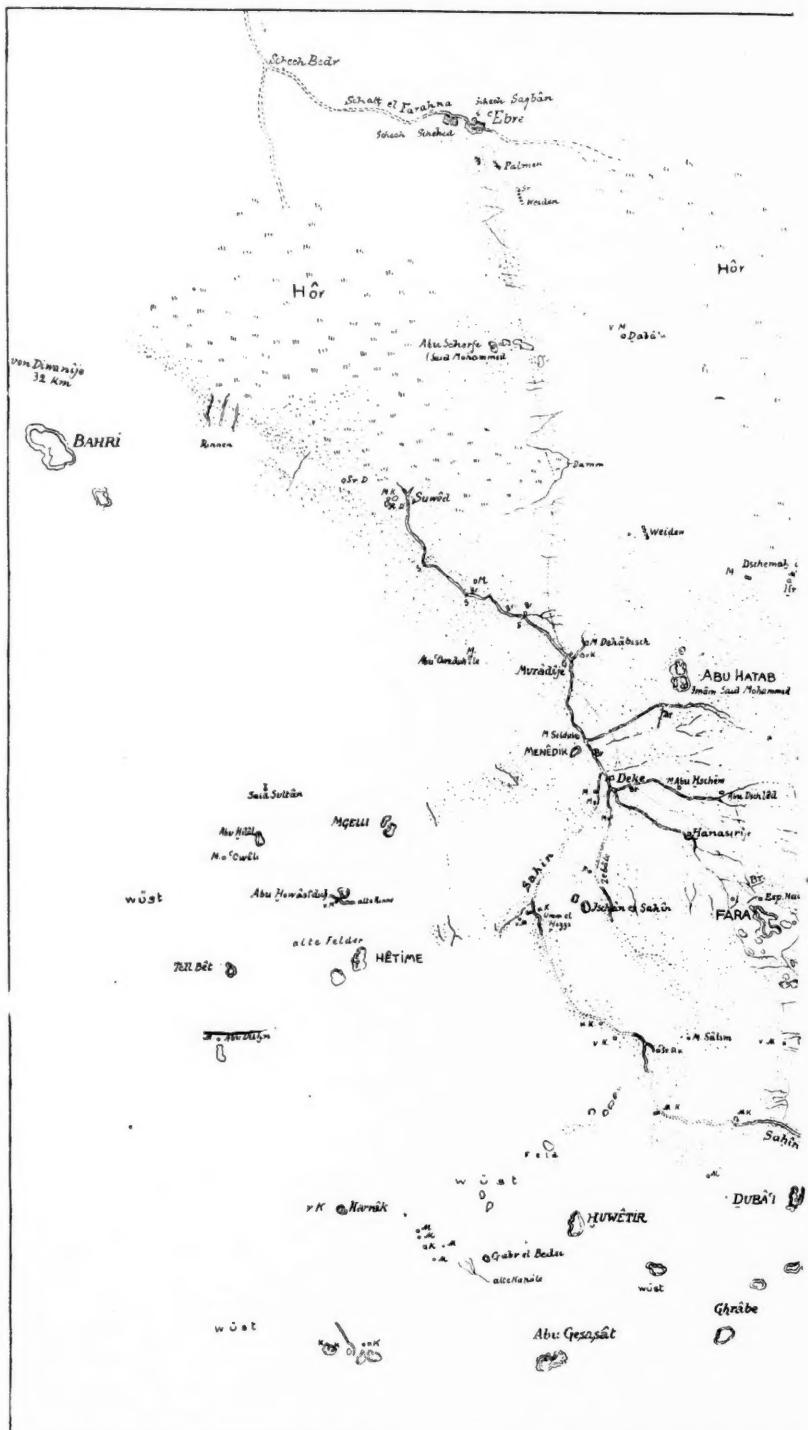
*Translated and condensed from the official reports of the German Oriental Society by Prof. Karl Hau*

THE expedition left Babylon on June 14, 1902. Dr. Delitzsch, Mr. Baumgarten, and myself [Dr. Koldewey], together with 30 laborers and baggage, took a boat down the Euphrates, entered the Dagara and arrived on the 15 in Suk-ed-Dagara, on the morning of the 16 at Suk-el-Affedsch. There the whole expedition was transferred to 24 smaller boats (Meschhof) and landed on the 18 near Fara. On the 20 we had encamped and will begin the excavations tomorrow.

A regular postal connection has been established with Babylon by way of Diwanieh; it takes a 3-days' ride from Fara to Babylon.

We began our excavations with a long ditch from north to south, through the northern part of the ruin. Our results up to the present time are as follows:

The whole ruin is very old, even the upper stratum. This is proven by numerous knives and saws of flint and obsidian, stone hatchets, tools made of stone and bone, and the utter absence of any remnants of a later period. Ill-shaped bronze coins and small copper or bronze utensils are found here and there. The pottery of simple



## MAP OF FARA

UMGEBUNG  
VON  
FARA UND ABU HATAB

WÜST

Aufgenommen im Jahre 1902 von W. Andrae

**K** = Kella (Burg).  
**M** = Meftül (Turm).  
**v** = verfallen  
**S** = Sedde (Staudamm).  
**Br.** = Brunnen.  
**Sr. D** = Sreien (Schiffnuten-) Dorf.  
**BF** = Buschland bei. Felder.  
**M** = Mör, Marsch, jetzt meist trocken



AND ABU HATAB



CIRCULAR BRICK WALL AT THE NORTH END OF TRENCH I

design resembles that of Surgul—flat vases, chalice goblets, and oval pots. A larger vessel with a socket and without a handle, as they are painted on the old seal-cylinders, is found more frequently—all without any ornament. Aside from these we find fragments showing attempts at phantastique ornamentation and simple cups of beautiful white stone, marble, etc.

We also found in the ditch about 400 stamps of seal-cylinders. They are round pieces of clay and almost all show the same impression. Most frequent is the struggle between the bull-man and the lion-killing antelope. The movements are exceedingly full of life and the heads with the strong nose and the simple round eye look like bird heads. The weapon is peculiar; a long staff at the end of which a half-moon is attached, and which is held in the middle and used like a poniard. The technique shows no trace of the polishing-wheel.

In the same stratum lay several clay tablets, with a simple incised design, bulls, bull-men, tools, etc., and finally a few tablets with very old cuneiform characters.

The buildings are composed of baked and unbaked bricks of the old rectangular form. On the convexed surface lines and impressions are made with the finger; only a few of the walls are straight-lined. But there are a great many rotundas on the hill of doubtful use; they have a diameter of 2, 5 m. The walling consists of 2 or more concentrically placed vessels, succeeding in turns. This is the typical construction of the walls here. The rotundas are surmounted by a vault very similar to the burial vault in Mugheir or the Tholæ of Mycenæ. One of these rotundas we have cleared down to the bottom; it was filled with old rubbish, bricks, broken pottery, fishbones, etc. In the upper part of another one we found 4 human skulls. The modus of interment I have not yet been able to comprehend. The skeletons lie coffinless, without arrangement, together with many ornaments—necklaces of achat and lapislazuli, pearls of shells, corals, mother of pearl, amethyst; also a silver earring (?) of a peculiar form.

The well-known clay pipe fountains jut out of the ruins in great numbers. Part of them have a considerable diameter—1.50 m.—while

the adjoining cesspools consist of a very thin pierced tube, at the upper end of which stood a tilted vessel, serving as influx. On the whole, they resemble the Surguler; the skeleton, too, was found near the fountain.

The whole surface of the hill has been excavated before, as is clearly shown by the thousands of small holes that appear everywhere. All of these excavations, it is true, do not go very deep, but it must be remembered that even the surface is of pre-historic character.

Our camp is situated to the north of the ruins and nearly completed. We have about 160 workmen—together with wives and children, 400—500 of whom live in tents near the camp.

Frederick Delitzsch left Fara on July 13 to visit the southern ruins.

The ditch through Fara is now over 400 m. long; we have recently found some very good tablets in it, the copy of one of which I enclose.\*

Besides the tombs contain some well-preserved seal-cylinders, plenty of pottery, a few bronze hatchets and the like. In one of the tombs all of the bones lay in asphalt and the skull was completely filled with asphalt, as well as the vessels that had been placed in the tomb.

The walls of the buildings made of clay bricks are generally very weak.

After the completion of the main ditch from north to south, we finished one from east to west in the southern part of the hill, partly having a depth of 7, 8 m. The strata are the same as in the former ditch, and contain no important building of any kind; where walls are discovered they are very insignificant showing the remnants of dwellings of a low civilization. Some tablets were found, but not deeper than 2 m.; the lower strata contain almost nothing, the upper ones some simple tombs with pretty seal-cylinders. From now on we will not make the ditches any deeper than 2 m. and can only hope for some good old tablets.

We heard that in Abu Hatab bricks with inscriptions had been found; our investigations resulted in the discovery of several of them. I enclose the copy of one of them.†

On September 14, 1902, Mr. Andrae reported from Fara that the ditch through the southern part of the hill had brought forth some

\*Note by Dr. Messerschmidt—It is one of the oldest Babylonian tablets (conservatively estimated about 3000-2600 B. C.), as they have been excavated in great numbers at Telloh and Nippur. The contents are of no importance; they neither reveal the name of the place nor the exact period to which the tablet belongs.

†Note by Dr. Messerschmidt—Fara is apparently a Necropolis, like Surgul and El-Hibba, excavated in 1886; the discovery of these clay tablets, it is true, is rather remarkable and seems to point to at least a partial settlement of the place, unless the tablets have been carried over from Abu Hatab (?). According to the inscription on the tablet it owes its origin to "I-am (?) Samas, the son of I-din-ili, the priest-prince of Kishurra, the beloved son of the Sun-god and the goddess Annunit." If the brick really belongs to Abu Hatab, the ancient name of the place probably was Kishurra. This city is mentioned in the geographical list, IV, R 36, No. I, Rev. II, 3, and on one tablet of our collection (receipt for wheat), VA, Th. 2425. The latter is dated from the first year of the reign of King Gimil-Sin of Ur (approximately 2550).

further small tablets and seal-cylinders, also a fragment of a stone relief in small dimensions, representing 2 rowers in a boat; also a new ditch had been begun, going through the middle of the hill.

On December 3, 1902, Dr. Koldewey reports that among the tablets found recently there were about 30 more or less valuable pieces, completely preserved, mostly unbaked. Also several abnormally large fragments, one of which shows very beautiful characters, but, unfortunately, is incomplete.

The tablets found in ditch IX are very old; the bigger ones are flat on one side and convex on the other. One of them is about 8, 9 m. thick, 18, 23 cm., and has  $8\frac{1}{2}$  columns of about 19 characters. The characters show roundly drawn lines mixed with cuneiform.

Among the other findings a beautiful alabaster sculpture found in one of the tombs is quite noticeable. The ornaments consist of white triangular pieces of shell laid in a stripe of black paste.

Mr. Andrae reports: Our plan of excavation at Fara, as you know, has been to dig one ditch from north to south and numerous diagonal ones in those places where the most valuable finds were made. The northern part of the hill has given the best results. We intend to begin excavations at Abu Hatab as soon as water can be obtained there again.

The Ishtar gate is now completely excavated and lies between the Ninmach temple and Singur-Bel.

From Fara, Dr. Koldewey reports on February 20, 1903: Leaving Babylon on the 23 of January, I arrived here on the 26. The excavations at Fara and Abu Hatab are being carried on simultaneously. But Abu Hatab does not seem to furnish anything of importance. The unbaked tablets, found there, are badly preserved, also the quadrilateral prisms of unbaked clay. Only small and insignificant finds being made there, we concluded our excavations on the 25 of February, after they had lasted for 33 days. I admit that the hill has not been searched with all possible thoroughness, but am of the opinion that such a search extending over 6 or 8 months would not be profitable. The possibility to take up excavations again at a later time always remains.

In Fara we found a well-burned building, in the rubbish of which a great many well-preserved tablets of large and small size were found. Between January 29 and February 8, we got about 235 of them, 68 of large size, 35 of middle, and 135 of small size. Among them are well preserved and hardly damaged, 27 large ones, 20 middle, and 81 small ones. We designate as small ones those of  $4\times 7$  cm., middle ones  $7\times 12$  cm., large ones  $12\times 20$  cm. The largest tablet is  $32\times 36$  cm. The inscription on one side is very short, while the other side has 10 columns, each of 24 lines. I do not undertake, with the scanty means at my disposal, to clean and restore these valuable tablets here, but leave this task to the better equipped experts in Europe.

In general the finds repeat themselves, the same tools, vessels,

and cylinders. One cylinder, the copy of whose inscription I enclose,\* is unique; it was found in the western part of the ruin.

After this important find, I think we can terminate our excavations in Fara with good conscience.

The excavations of Fara were closed on March 2, and all the members of the expedition returned to Babylon.



BRICK CANAL, FARA

EXCAVATIONS AT FARA AND ABU HATAB, BETWEEN AUGUST 15, 1902, AND  
JANUARY 10, 1903

BY W. ANDRAE

During the first 2 months of excavation at Fara it appeared clearly that the tablets, tools, and buildings found were limited to the upper stratum (2 m. deep); nothing was discovered below that. Therefore our ditches, about 3 m. broad and 900 m. long, never exceeded 2 m. in depth. The ditches I-VII (see plan at the end of this report) slowly brought forth the finds mentioned in Report 15, p. 9 ff. Isolated typical rounded tablets of baked and unbaked clay were rarely found, always with the same antique characters; also seal-cylinders were found partly in the rubbish, partly in tombs that were hardly distinguishable as such, showing some in crude and some in more delicate execution, struggles between beasts, fabulous animals and men. The material is, in most cases, alabaster, sometimes shells, rarely hard stone.

The tombs are either sarcophagi or mat-tombs. The comparatively rare clay-sarcophagi are unvarnished, have a flat bottom, perpendicular walls of even height, and an oblong oval ground-plan, are about 1, 80 m. long, 0, 30-0, 40 m. high, and are closed with a terra cotta cover; they are almost without ornament. In the case of the mat-tombs the corpse was wrapped up in reed-mats and together with the appurtenances placed in a pit. There is no trace of combustion. The corpse in most cases lies on one side, the legs bent in a rectangular

\*Friedrich Delitzsch—The translation of this sumerian inscription is as follows: "Dada, Patesi of Sukurru, Haladda, Patesi of Sukurru, his son—the side (?) of the city gate of the god Sukurru he has supported (?)." If this table is found in situ, we get the Babylonian name of the ruin, now called Fara Sukurra, which is otherwise known to us both as a name of a city and of a god. [See Hugo Radau, *Early Babylonian History*, 1900, p. 302.]



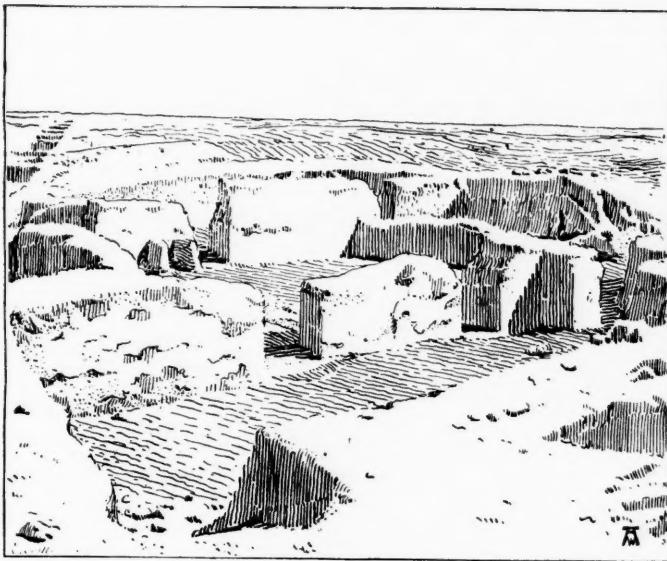
RUINS OF A HOUSE DESTROYED BY FIRE, FARÄ

position. The one hand carries to the mouth a cup of clay, copper, shell or stone; plenty of other cups lie near the skull and even outside the sarcophagus, apparently anticipating a considerable thirst in the other world. In the richer tombs the arms and jewelry of the deceased are added. The arms consist of bronze spears and arrow tips, bronze poniards, and bronze hatchets of different forms. The jewelry mainly consists in pearl chains, with which even the men are prodigiously adorned, the richer ones of lapislazuli and agate, the poorer ones of glass. Also finger and arm rings of silver and bronze are found and bronze staffs with lapis-points on both ends. The tools consist of bronze fishing hooks, net weights, bronze hatchets, and in almost all cases color-tubs of shell or alabaster. These tubs are typical and the colors are in most cases well preserved—black and yellow, red and light green. The tubs show very pretty ornaments and sometimes 2 or 3 of them are connected. What the purpose of these color tubs was is doubtful. Perhaps they were used as paint, and being considered essential were placed in the tomb of the deceased to be used in the next world.

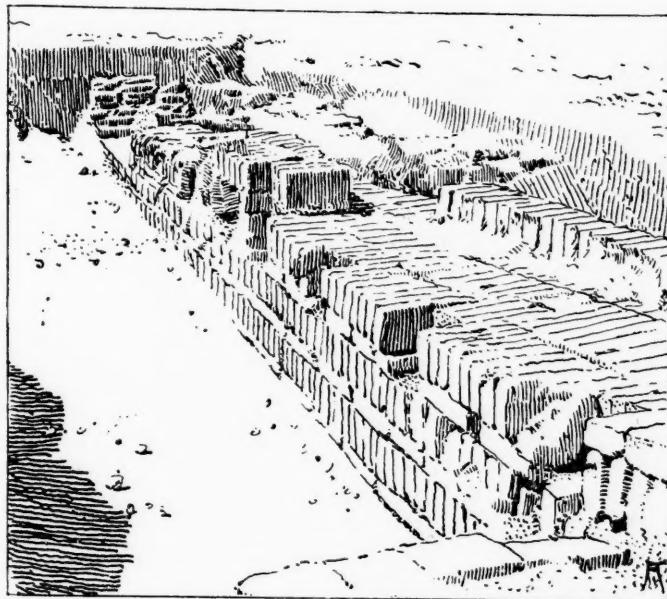
We could not determine whether the sarcophagi or the mat-tombs were the older; they seem to have been used interchangeably. Nor are the sarcophagi any richer than the others; rather the contrary seems to be the case.

The pottery is very simple and does not show many variations. Those described in Report 15, p. 9, are the most frequent. They have no ornaments worth mentioning.

Stone vessels, cups, and pots are rather frequent and mostly of alabaster; they are also very simple and of the same design as that now used in the neighborhood. They sometimes have reliefs of beasts and men.



COURT OF A HOUSE IN FARA



WALLS OF A BRICK BUILDING, FARA

Sculptures are very rare and mostly in alabaster. In ditch I-e several tablets with a very pretty design, showing bulls and men, were found, that betray considerable skill in drawing.

The brick building discovered in ditch III a-b is very incomplete. The plan consists of a quadrangular central court, surrounded by chambers. The walls are very weak, 1 m. or less thick, and the chambers very small.

The excavations at Abu Hatab were commenced December 24. The surface of the hill has been searched before like Fara, but is of rather recent date. It is covered with small brick buildings, the walls of which are very thin; some of the bricks are stamped with a stamp



THE COVERED GRAVE OF A CHILD, FARA

of 9 lines by a King of Ur, Bur-Sin. The stamp seems to me identical with the one given in K. B. III, 1, pp. 88, 89:

<sup>1</sup>(Dingir) Bur-Sin <sup>2</sup>In-lil-ki-a <sup>3</sup>(dingir) In-lil-li <sup>4</sup>mu-pad-da  
<sup>5</sup>SAK.US <sup>6</sup>I(dinger) In-lil-ka (?) <sup>7</sup>nitah (?) lig-(?)-ga <sup>8</sup>lugal Ur-  
 (ki)-ma <sup>9</sup>Lugal (AN). UB. DA. IV-ba: “<sup>1</sup>Bur-Sin, <sup>2</sup>in Nippur <sup>3</sup>by  
 Bel <sup>4</sup>appointed <sup>5</sup>SAK.US <sup>6</sup>of the temple of Bel <sup>7</sup>the brave hero <sup>8</sup>King  
 of Ur <sup>9</sup>King of the 4 regions of the world.” These fragments were  
 found in the northwestern part of the hill.

The buildings or their ruins were used as burial places; numerous antique tombs were found. Most frequent is a sarcophagus consisting of 2 large pots adjusted with their edges in a horizontal position. This rather peculiar form is known to us from the pre-Nebuchadrezzar strata in Babylon and Mugajir (see Perrot & Chipiez II, p. 373). In this pot-capsule the corpse lies on the back or on the side, the legs drawn up. One or both hands are near the head, where ordinarily

some vessel of clay or copper is placed. One of these consisted of a pot with the corpse of a child bearing an arm and a foot ring of bronze.

Clay tablets were found here and there in the rubbish of the buildings. They are unbaked, but comparatively well preserved. The form is essentially different from those found at Fara. They are rectangular in proportion of 1:2-2:5. In many cases they are sealed with stamps bearing the name of the owner and that of his father. The characters are of a later date than those in Fara.

The plastic art is represented by a few small terra cottas. Two of them show a nude woman (perhaps Nin-mah) holding her breast with her hands, a type found very frequently in Babylon. The picture of the head of the same goddess, remarkable through the elaborate hair dress, and the picture of a walking man appear frequently.

Of the pre-historic period we found in Abu Hatab almost nothing; the exact historical period of its settlement may, I hope, be discovered from the inscriptions of the tablets.



### THE CAIRNS OR STONE SEPULCHERS OF BRITISH COLUMBIA AND WASHINGTON<sup>1</sup>

BY HARLAN I. SMITH

**I**N THE southeastern part of Vancouver Island in British Columbia, and on the San Juan Group and Whidbey Island in Washington, numerous stone cairns containing graves are found. All of these, so far as known, are of considerable age. They certainly antedate the period of the first advent of objects manufactured by whites. The Indians have no historic tradition as to their origin.

The cairns are from 3 to 20 ft. in diameter, and generally consist of irregular piles of bowlders. In some cases a more or less rectangular cyst is built around the body, made by roughly arranging a number of bowlders, the straightest sides of which are placed so as to form an oblong cyst, and by covering the opening thus formed with one, two, or more slab-shaped rocks, each extending from side to side. These we will call "cover-stones." No cairns were found where two or more stones were wedged over the cyst in the manner of an arch. In other cases there are slab-like stones over the grave, but the cyst is ill defined, if present at all. In still other cases the enclosure is well made, but the stones used to cover the top are so small that they do not reach across. Above the cyst a rough pile of stones is reared. Many cairns are bounded by single rows of large stones, while the space between

<sup>1</sup>The full report on this subject is given in *Cairns of British Columbia and Washington*, by Harlan I. Smith and Gerard Fowke, which appeared as a publication of the Jesup Expedition, being Part II of Vol. IV of the *Memoirs of the American Museum of Natural History*, January, 1901.

this outer wall and the cyst is filled with small fragments of bowlders, and in some cases largely with soil or with a mixture of these materials. Several cairns have been found where the outer row of stones had been laid in a rectangle and carried up so as to form a retaining-wall, making the whole structure resemble a truncated pyramid. Other cairns have been found in which the body rested at the side of a large bowlder, and was covered with small bowlders piled up against the large rock. The stones forming the cyst and those in the outer row are often embedded deep in the soil around the grave. Probably they were not so placed, but sank to this position by reason of their large size and great weight. In some cases the stones of the cyst project above the rest of the cairn.

The position of the skeletons proves that the bodies were placed on the side, with the usual flexion. They were deposited either on the original surface of the soil, or in a shallow hole dug down into the surface soil or even into the gravel below. In some cases the skeletons are found sunk into the soil. Many of them are much decayed. This is especially the case in the cairns near Victoria, B. C., in which complete skulls are rarely obtained. In 42 cairns opened there, no entire bones were secured. At North Saanich, B. C., and near Coupeville, Wash., however, complete skeletons have been collected. A few of these were partly burned, but the burning probably did not take place in the cairns.

A few copper ornaments have been found buried with the skeletons, and in one cairn a stone object was secured from among the top stones. Bancroft<sup>2</sup> states that in a rectangular cairn near Comox, B. C., a pencil-shaped stone, sharp at both ends, was found with a skeleton. Objects other than these have not been found, except in cairns built on shell-heaps, as at North Saanich. But objects found in these cairns do not seem to be in positions suggesting that they were buried with the bodies, and their presence may be satisfactorily accounted for by assuming that they were taken up from the shell-heaps with the earth or bowlders used in the construction of the cairn.

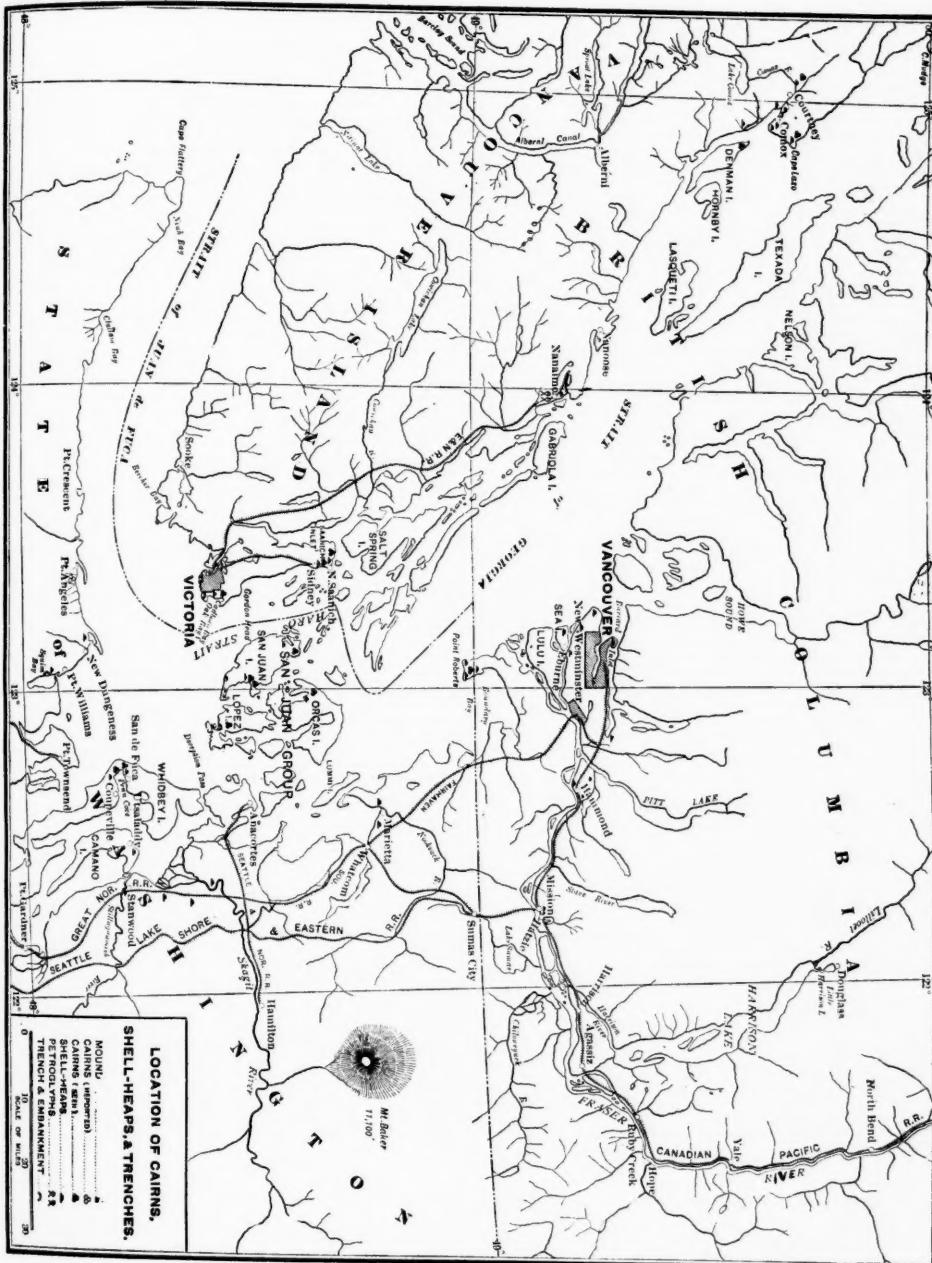
The scarcity in these cairns of all objects other than human bones is remarkable. In this respect the cairns resemble the graves in the shell-heaps of Lower Fraser River, where, excepting a few pieces of copper, hardly any specimens were found associated with skeletons, notwithstanding the wealth of material obtained from the shell-layers near by.<sup>3</sup>

The cairns on Vancouver Island near Victoria and Comox have been known for many years, and are described by Bancroft,<sup>4</sup> from information furnished by Mr. James Deans, of Victoria, and embodying the results of examinations made by him in 1871. Mr. James Richardson, of the Canadian Geological Survey, was one of the first to open cairns. Those near Victoria, being convenient of access, have since

<sup>2</sup>*Native Races of the Pacific States*, Vol. IV, p. 739.

<sup>3</sup>See *RECORDS OF THE PAST*, March, 1904, p. 82.

<sup>4</sup>*Native Races of the Pacific States*, Vol. IV, pp. 737-739.



been examined by numerous investigators, including Professor Karl von den Steinen and members of the Natural History Society of Victoria. Prominent among the latter were Dr. Charles F. Newcombe and Mr. O. C. Hastings. Some osteological material resulting from their work is preserved in the Provincial Museum in Victoria. Professor Franz Boas examined a number of cairns at Parsons Bridge, near Victoria, and on the Saanich Peninsula. Dr. George A. Dorsey excavated a few at Cadboro Bay in 1897.

The following description is based on explorations conducted for the Jesup North Pacific Expedition in the years 1897, 1898, and 1899. A detailed statement of these is given in *Cairns of British Columbia and Washington*, by Harlan I. Smith and Gerard Fowke. With the exception of the explorations made by Mr. Fowke in 1898, the whole work was carried on under the direction of Mr. Smith.

In our investigations near Cadboro Bay, assistance was rendered by Mr. O. C. Hastings and Mr. James Deans; at Comox and North Saanich, by Mr. Albert A. Argyle; and at Coupeville by Mr. Thomas Murphine. Mr. W. H. Thacker made a reconnaissance on the San Juan Islands. The expedition is especially indebted to Mr. Alexander McDonald for permission to explore on his land in North Saanich. To Mr. Frederic T. Lazenby, who had explored burial-mounds near Port Hammond and Hatzic, we are indebted for the privilege of publishing his notes. The illustrations of specimens are from drawings made by Mr. Rudolf Weber.

The accompanying map shows the locations of typical cairns, so far as known. These structures are usually situated on slopes with gravelly soil, and strewn with angular boulders. They overlook, or at least are near, the sea. At many places the single cairns are about 20 ft. apart. Locations of shell-heaps and trenches are also given on this map.

The most northwesterly cairns known are on top of the bluff at Cape Lazo, about 4 miles northeast of Comox. They are small, largely made up of gravel, and the skeletons found in them were almost entirely decomposed. At the base of the bluff is a small shell-heap.

Small cairns of the usual type were found near Courtney, on the ridge back of the Indian potato-patches which are situated west of the shell-heap that extends along the southern branch of the Comox River. Other mounds or cairns were situated near Courtney, on the slope south of the Mission Church and northern road. These were composed of pebbles and fragments of rock from 1 to 3 inches in diameter, and of loam. They resemble the natural mounds on the prairies south of Tacoma, Wash., and are probably of similar origin, as no artificial structure, artifacts, or bones were found in them. There are several shell-heaps at the same place. Cairns are said to have been found on the hillside that descends to the Indian village about a mile west of Comox in the direction of Courtney, between the northern and southern roads. They were destroyed by the road-builders.

A cairn was found on Denman Island at the western end of a small shell-heap that extends along the northern end of the island, and two more cairns were seen at the base of the high bluff on the eastern side of the north point of the island. These cairns on Denman Island were of the usual type, but rather small.

Mr. Deans reports that at Nanoose, about 12 miles north of Nanaimo, there are "cairns of earth" in which Indians made intrusive burials.

At Port Hammond and Hatzic, B. C., were a few burial-mounds which in some respects resembled the cairns under discussion.

At Point Roberts, Wash., on the southern end of the shell-heap situated at the eastern end of the bluff, were a series of burials, which, although covered with boulders, differed in many respects from typical cairns.

Cairns are found at several places on the islands of the San Juan Group, which lie directly across Haro Strait, east from Victoria.

Small cairns were found on every point of land on the bay at North Saanich, which is 15 miles north of Victoria.

Mr. Argyle discovered others on a point at Sidney, about 2 miles south of North Saanich, and on a point about 1 mile northeast of North Saanich. Mr. Hastings reports them on Salt Spring Island, which is about 5 miles northward from North Saanich.

About 4 miles northeast of Victoria, on land belonging to the Hudson Bay Company, and sloping eastward toward Cadboro Bay, were several hundred cairns made of boulders, apparently taken from a parent outcrop at this place. It was here that Messrs. Deans, Hastings, Newcombe, and other members of the Natural History Society of Victoria, as well as Professor Boas, Professor Von den Steinen, and Dr. Dorsey, made their principal examinations of cairns. Here and generally in the vicinity of Victoria the custom of constructing cairns seems to have had its highest development. The type of structure appears to have undergone modifications with increasing distance from this point.

Due east of this group, close to the beach on the south end of a little point, were a few small cairn-like structures. The north end of the point was cut off by a dry moat. Here were found traces of house sites, and 2 skeletons covered with a few stones.

Cairns also exist on Discovery Island, due east of Oak Bay, and not far from Victoria. Professor Boas observed many at Parsons Bridge, south of the Gorge. According to Mr. James Deans, there are cairns on the Hudson Bay Farm, east of the Victoria and Nanaimo Railroad and west of the Gorge. A druggist of Victoria reports cairns at Gordon Head, 6 miles from Victoria. Mr. Argyle reported some on Rocky Point, which is about 22 miles by road southwest of Victoria, in Metchosin County, and on Church Hill, near Beecher Bay, 1½ miles beyond Rocky Point. Others are said to exist on the Pemberton

estate, near McNeill Bay, and at Sooke, about 6 miles northwest of Beecher Bay.

On the south side of the Straits of San Juan de Fuca, cairns are reported at Port Angeles. On Whidbey Island,  $3\frac{1}{2}$  miles northwest from Coupeville, or  $1\frac{1}{2}$  miles west of San de Fuca, at the most westerly point of Penn Cove, were a number of small cairns made of angular bowlders. They were situated on the slopes near the beach, on both sides of a small ravine.

The cairns, so far as known, are always near shell-heaps; but the latter are so numerous all along the coast that their proximity does not necessarily imply an historical relation between the 2 kinds of structures. In the area of cairns human bones are rarely found in shell-heaps, except when a cairn has been erected over the latter. It seems, however, that a few skeletons found at Comox, North Saanich, and near Coupeville, are the remains of bodies, buried on the shell-mound before it had reached its present height. It is only in the shell-mounds of Lower Fraser River that human remains are numerous. In the northern part of Vancouver Island and in Washington, south of Coupeville, in which regions no cairns have been found, human remains seem to be absent from shell-heaps.

On the whole, the evidence furnished by the region from which we have the fullest data tends to show that at one time the cairns were the burial-places of the makers of the shell-heaps near by, but that on other occasions and in the same region people who made shell-heaps did not bury in cairns. The variation in form of the cairns seems to be due to the character of the material available for their construction and to the greater or less care taken, rather than to difference in plan. The various forms are more or less abundant wherever cairns are numerous. Those made of large bowlders are most common at Victoria, Coupeville, and other places where such materials occur. The most elaborate cairns, and the greatest variety, are found near Victoria.

Some cairns with an outer retaining-wall of stones and a cyst in the middle, such as have already been described, agree closely with the description of mounds given by Fowke.<sup>5</sup> In these latter, soil was used in place of small stones to fill in the spaces between the cyst and the retaining-wall. The transition from one form to the other is quite gradual. At Cadboro Bay both types are found at the same site. It would seem that some among the burial-mounds located along the Lower Fraser River, between Hatzic and Port Hammond,<sup>6</sup> may be considered as highly modified forms of cairns. No cairns made entirely of stone were found in the last-mentioned region.

Among the cairns at Cadboro Bay were a few rectangular en-

<sup>5</sup>See p. 73 (Cairn 17) *Cairns of British Columbia and Washington*, by Smith and Fowke; also Bancroft, *Native Races of the Pacific States*, Vol. IV, p. 737.

<sup>6</sup>Some of these were first explored in the summer of 1894 by Mr. Frederic T. Lazenby, of Retford, Notts, England, during his residence in British Columbia; see p. 60, *Cairns of British Columbia and Washington*.



CAIRNS NOS. 14 AND 15 AT NORTH SAANICH, B. C., SHOWING SKELETONS

closures, open on top, similar in form to the cysts in cairns. No remains were found in them. These may have been unused burial-places. There is no evidence that they were cairns opened by previous explorers. Such enclosures were all on high outcrops of rock near the center of the burial-place.

The cairns were evidently all built on a well-defined plan, looking towards the construction of a central cyst, which, however, was often very poorly made.

In Nicola Valley in the interior of British Columbia,<sup>7</sup> in Montana, and in Idaho, graves are found in talus slopes. There graves are covered with piles of stone. None of them have cysts. Near the outlet of Nicola Lake and between Harrison Lake and Little Lillooet Lake, graves were found in which the body was buried in the ground. A few bowlders were placed on top of the grave. Both structures are entirely distinct from the cairns with central cyst which we are discussing here.

Near the head of Harrison Lake, at Point Roberts, in the shell-heaps of the Lower Fraser River, and in those near North Saanich and at Comox, graves were found which were covered by a few bowlders, like those just described; but both skeletons and bowlders were covered by earth or shell-heap material.

At Point Roberts there were a number of pits, surrounded in some cases by bowlders. In one of these pits, covered by a few bowlders, several skeletons were found buried in one excavation, while cairns

<sup>7</sup>See *Memoirs of the American Museum of Natural History*, Vol. II, pp. 405, 437, *et seq.*

contain but one skeleton each. There were no objects with the skeletons found in these pits, which can hardly be classed with typical cairns.

The skulls from the cairns give evidence that the people practiced the same methods of deforming the head that were in common use in this area until recent times. A skull from Coupeville shows the characteristic deformation of the Chinook heads, in which forehead and occiput are so much flattened as to be nearly parallel. Most of the skulls from Victoria and vicinity are flattened to a less extent. A few skulls found near Victoria and at North Saanich suggest a method of deformation somewhat similar to that practiced by the Kwakiutl, which consists of a combination of antero-posterior and lateral pressure, and results in a narrowing and lengthening of the skull. On the whole, however, antero-posterior flattening seems to have been used most extensively.

#### DETAILED ACCOUNTS OF EXPLORATIONS

##### PORT HAMMOND

A burial-mound made of earth was found about a mile north of the shell-heap bordering the north side of Fraser River at Port Hammond. It was on the border of Pitt Meadows, measured 24 ft. in diameter by 5 ft. in height, was of the usual circular mound form, and below the surface layer was composed of yellow clay. Extending through the mound, on a level with the surface of the surrounding forest, was a stratum of vegetable mould averaging half an inch in thickness. Near the center of the mound this stratum contained pieces of charcoal, burned clay, and ashes, barely sufficient to be the result of the cremation of a body. Below this stratum was the natural surface soil, and about one foot lower down the yellow clay subsoil.

Another mound, situated on the bluff overlooking Fraser River, just above the shell-heap at Port Hammond, was explored by Mr. Lazenby in 1894. He reports that it was a simple mound of circular outline and about 10 ft. high, composed of a surface layer of vegetable mould, and under this of sandy soil similar to that found in the neighborhood. There were no boulders in it; a skeleton was found stretched out at full length on its back, in a good state of preservation, unaccompanied by objects; the skull was short; and the Indians knew nothing of the mound, and had no legend about it. Only 3 cases have come to my notice in which ancient skeletons have been found stretched out at full length, although I have opened several hundred graves in British Columbia.

##### POINT ROBERTS

At Point Roberts pits from 5 to 15 ft. in diameter by from 3 to 5 ft. deep were found. They contained human skeletons. In some cases, boulders stood around the edge of the pit, and others covered the skeletons. Dr. R. Eden Walker, of New Westminster, who described these pits to us, designated them as wells with paved bottoms



ENCLOSURE NO. 6, CADBORO BAY, NEAR VICTORIA, B. C., FORMED OF SIX  
LARGE BOWLDERS AND SOME SMALL STONES



CAIRNS NOS. 10 AND 10A, CADBORO BAY, NEAR VICTORIA, B. C.



CAIRNS NOS. 14 AND 15, NORTH SAANICH, B. C., IN RIGHT BACKGROUND  
AND LEFT FOREGROUND, RESPECTIVELY, BOTH FILLED WITH CLAY

which covered graves. Our excavations showed about 2 ft. of vegetable mould in the bottom of the pits, which extended down into the shell-mound material. In one pit 4 skeletons were found. The bones were disarranged, showing that the position of the skeletons must have been changed after burial. Over them were traces of wood, and above these bowlders. The whole suggests that the bodies had been placed in boxes, and that these boxes were buried in pits and covered with bowlders. When the boxes decayed the bowlders fell down into the pit. These skeletons were found at a depth of from 2 to 3 ft. below the bottom of the pit. There were no objects with them.

Mr. Thacker first published some of his notes on the cairns of the San Juan Group in *The American Archaeologist*, Vol. II, Part 4 (April, 1898), p. 97.

#### NORTH SAANICH

Many of the cairns at North Saanich were built on top of the shell-heap, which is parallel to the beach at the postoffice. Some appeared like a small outcrop, but on excavation proved to be cairns with cysts, some of them 5 ft. in length, made of bowlders weighing several hundred pounds. The best-made of these cysts were somewhat rectangular, the straightest sides of the bowlders being placed inward. They were covered with slab-shaped stones, having at least one straight side, which was placed downward. Usually the stones forming the

cyst constituted the greater part of the structure. The pile was made up of few and comparatively small stones.

There were also found cairns so rude that no cyst could be recognized. They were simply stone piles, or a few heavy boulders placed on top of the skeletons. In some of these rude cairns there was a row of stones placed around the body and the material covering it. In these the skeletons usually rested on the natural surface of the soil, the cairn being built over it. In some cairns with regular cysts the skeletons were found 4 ft. deep. Several cairns were covered and filled with clay, so that they appeared like some of the mounds at Hatzic, but were much smaller. On the whole, the cairns of this place are smaller than those found at Victoria.

In the cairns, well-preserved skeletons were usually found, although some were charred, and a few were much decayed. They were in a better state of preservation than any found by us near Victoria, but this does not necessarily indicate that the burials were more recent, since more favorable physical or chemical conditions of the soil would prevent rapid decomposition. In 1898 we explored 21 cairns at this place.

The fact that small barnacles still adhered to some of these stones in a cairn explored in 1898 near North Saanich, proves that they were taken up from the beach. A fir tree 1 ft. in diameter was growing up through the cairn. A fir tree 4 ft. in diameter, probably over 200 years old, stood over another cairn. Its roots were 8 in. thick over the skeleton. A large stone, in which a small mortar had been made, was used as a cover stone over the skull in one cairn.

A copper object with a small hole near one side, evidently for suspension, was found at the head of the skeleton in one cairn near here. It resembles in form the copper ornaments found in the Thompson River region (see Figs. 87-89 and Figs. 365-366, Vol. II, *Mem. A. M. N. H.*), and appears to be in 2 layers.

Another cairn near this place was about 1 ft. 6 in. high, and filled to a level with the highest boulders with yellow clay, which probably originally covered the cairn. This feature is decidedly striking when compared to cairns in which the skeleton is found on the natural surface of the soil, surrounded by a row of boulders, and covered with gravel.

#### CADBORO BAY, NEAR VICTORIA, B. C.

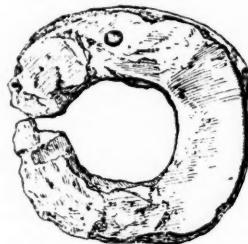
Cairns are very numerous at this point. Many have been opened at different times by various parties. In October, 1897, 21 were explored by Harlan I. Smith; while in April of the following year a like number were investigated by Gerard Fowke.

#### WHIDBEY ISLAND

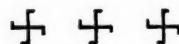
The cairns on Whidbey Island resemble those found near Victoria more than do those of other places. Many of them are built at the sides of large boulders. The body usually rests on the right side, with

the head west and the face toward the largest boulder, the small stones being at the back.

The report of Gerard Fowke forms a considerable part of the memoir *Cairns of British Columbia and Washington* previously mentioned, and like other reports here omitted, give details of cairn construction.



STONE OBJECT FROM A CAIRN IN BRITISH COLUMBIA



## EDITORIAL NOTES

NEW ARCHAEOLOGICAL SOCIETY IN PARIS:—An Archaeological Society has been founded in Paris on the lines of the Deutsche Orient Gesellschaft. The new society is under the name of Société Française de Fouilles Archéologique, and is presided over by M. Ernest Babelon.

ROCK-MARKING AT ETAMPES:—Mr. George Courty, in a paper read before the French Association for the Advancement of Science, describes and figures the rock-markings at Etampes, in the department of Seine-et-Oise, which he attributes to the Neolithic period. Some fragments of sand-stone, with edges polished by prolonged rubbing, were found, by means of which the marks might have been made. The objects portrayed included a harpoon, figures representing boughs of trees, arrows, squares divided into numerous compartments, and other rectangular forms, but no figures of men or animals. They were found on rocks in 8 different parts of the same arrondissement.—[Athenaeum, London.]

FRAGMENT OF THE TABLET OF NEGADAH:—The most important news in the archaeological world of late is, perhaps, Mr. Garstang's discovery, as announced last week by Professor Sayce and confirmed by Mr. Garstang, of the missing fragment of the tablet of Negadah bearing the name of Aha, and called by some the tablet of Menes. *Teste* Professor Sayce, it fits exactly into the gap left in the part exhibited at Khasr-el-Nil, and a duplicate of the perfect tablet was also discovered by Mr. Garstang in a chamber left unexplored by M. de Morgan in 1897.—[Athenaeum, London.]

LOST HISTORIC TREASURES:—Dr. Flinders Petrie says that every year sees remains which have lasted for thousands of years wiped out. Now, in our own day, the antiquities of South Africa and of Central and South America have been destroyed as rapidly as they are found. Elsewhere engineers of every nation use up buildings as quarries or wreck them for the sake of temporary profit. Speculators, native and European, tear to pieces every tomb they can find in the East and sell the few showy proceeds, which thus lose their meaning and history. And the casual discoveries that are made perish in a ghastly manner. The Saxon regalia of Harold, the treasures of Thomas a Becket's shrine, the burial of Alfred, the burial of Theodoric, and the summer palace of Peking have within modern memory all gone the same way as the wonders that have perished in the French sack of Rome or the Greek sack of Persia.

MEDICINE IN ANCIENT EGYPT:—In the Harveian Oration, delivered on Tuesday at the Royal College of Physicians, Dr. Richard Caton described some results of an inquiry into the earliest records of medicine in ancient Egypt, particularly as regards the circulation of the blood and diseases of the circulation. The most interesting figure among the early physicians of Egypt was a priest of Ra, the sun-god, named I-em-hotep, who lived during the III Dynasty, nearly 6,000 years ago, and was succeeded by a cult of priest-physicians, who carried on his work of healing. Temples for the worship of I-em-hotep, which were also hospitals for the sick, arose first at Memphis, and then extended to other parts of Egypt. Here the priests not only treated the sick, but also embalmed the bodies of men and the sacred animals. In this process the heart and viscera were removed, and the priests had thus an opportunity of learning something of anatomy and of the changes produced by disease. These priest-physicians were probably the first to acquire a rudimentary knowledge of the movement of the blood. It was clear that medical science was cultivated and had advanced considerably in Egypt long before it arose in Greece. In Egypt the evidence of this fact was decisive, and in the writings of the pseudo-Apuleius it was interesting to know that Hermes told the youthful Asklepios of his predecessor, the first inventor of medicine, the Egyptian god I-em-hotep. When, in later times, Greek colonists came to Egypt, they recognized I-em-hotep as a sort of pre-existing Asklepios, and spoke of his temples as Asklepieia. The views of the circulation of the blood entertained by the Greeks were almost exactly those of their predecessors, the Egyptians; and, in view of the frequent intercourse between the 2 countries at that time, it was highly probable that the Greek physicians obtained their knowledge of the circulation, such as it was, from the Egyptians. The Egyptian priests seemed, in fact, to have been the first to engage in that momentous inquiry, which was finally solved by Harvey, and on which the progress of medicine depended.—[*Nature*, London.]

EXCAVATIONS IN TURKESTAN:—Professor Raphael Pumpelly, who is engaged in explorations in Russian Turkestan under the auspices of the Carnegie Institution, has written a letter to Dr. D. C. Gilman, the president of the institution, in which he says:

The streams that rise in the high mountains of Northern Persia emerge on to the Turkoman plains, forming fans, or sub-aerial deltas, covering many

square miles and each making an oasis. The water is all used in irrigating these fertile spots. Beyond them is the desert. Anau, where we have excavated, is one of these fans.

Here at Anau, about 7 miles east of Aschabad, there are 2 great tumuli, and the ruins of a city—Anau—surrounded by moat and wall, and occupied till within the last century. The 2 tumuli, nearly one-half mile apart, are nearly equidistant from the city at a distance of less than a mile. We have explored both of these tumuli, and I have done some work in the city.

The northern and older tumulus rises 40 ft. *above the plain*; the southern and younger tumulus rises 52 ft. *above the plain*. Both of these start with their lowest culture strata on slight elevations in the same original plain surface, more than 20 ft. below the present surface of the surrounding plain. That is to say, the plain has grown up more than 20 ft. since the settlements began. I will show further on, the different phases of this growth.

In the older tumulus, we find a culture occupying the lower 45 ft., distinguished by the technique and direction of its wholly hand-made and interesting pottery. This is succeeded in the upper 15 ft. by a more advanced culture, in which the finding of some remnants of bronze implements and lead beads (all wholly altered to salts of the metals) show a beginning acquaintance with the bronze, while the hand-made pottery has changed and become more developed. Throughout this tumulus we have found nothing recognizable as a weapon of offense in either stone or metal, though flint knives abound.

The southern, younger tumulus, starts with a developed wheel-made pottery, unpainted and of a technique wholly different from that of the older tumulus—though some hand-made pottery occurs not unlike some of the young products of the older tumulus.

From its base under the plain to its summit this tumulus has 74 ft. of culture strata. There are evident here at least 2 successive cultures. Of these, that of the lower 62 ft. is wholly in the bronze stage (but with survival of flint implements), while the upper 14 ft. are marked by decided changes and by the introduction of iron, of which the wholly oxidized remnants of some implements were found.

We have thus at least 4 distinct cultures, occupying 136 ft., with a break in the column between the end of the old and the beginning of the new tumulus. We do not know how great this gap may be, but the presence of some fragments of wheel pottery on the surface on the older tumulus, as well as in the neighboring irrigation column, seems to represent a transition from the older to the newer. This suggests the possibility that the gap was filled by strata, which is disappearing through wind and water erosion, and which must in any event, have been of considerable thickness.

Through all the cultures except the last—that of the iron stage—there ran a remarkable and characteristic burial custom. The children—at least, certain children—and seemingly only children, were buried in the houses, under the floor, in a layer of fire-hardened earth. I was struck last year by the fact that all the human bones I sent from here to Professor Zittel were those of children. The skeletons lie on the side with the knees drawn up in the "*liegende höcker*" position. With them have been found beads of turquoise, lapis lazuli, carnelian, and other minerals. Eighteen of such burials have been studied.

